Journal of Crystal Growth 133 (1993) 338–340
North-Holland

JOURNAL OF CRYSTAL GROWTH

Author index

Abe, S., see Mori 133 (1993) 80
Aindow, M., T.T. Cheng, N.J. Mason, T.-Y. Seong and P.J. Walker, Geometry and interface structure of island nuclei for GaSb buffer layers grown on (001) GaAs by metalorganic vapour phase epitaxy 133 (1993) 168
Anbukumar, S., see Ravi 133 (1993) 212
Aoki, Y., see Sakaki 133 (1993) 329
Arkenbout, G., see Lin 133 (1993) 322
Armas, B., see Rodríguez-Clemente 133 (1993) 59
Aspar, B., see Rodríguez-Clemente 133 (1993) 59
Aulombard, R.L., see Cloitre 133 (1993) 101
Azema, N., see Rodríguez-Clemente 133 (1993) 59

Babić-Ivančić, V., see Škrtić 133 (1993) 189
Baucom, K.C., see Biefeld 133 (1993) 38
Bennema, P., see Lin 133 (1993) 322
Biefeld, R.M., K.C. Baucom, S.R. Kurtz and D.M. Follsteadt, The growth of $InP_{1-x}Sb_x$ by metalorganic chemical vapor deposition 133 (1993) 38
Boué, F., F. Lefaucheux, M.C. Robert and I. Rosenman, Small angle neutron scattering study of lysozyme solutions 133 (1993) 246
Briot, N., see Cloitre 133 (1993) 101
Briot, O., see Cloitre 133 (1993) 101

Chani, V.I., K. Shimamura, K. Inoue and T. Fukuda, Huntite-borate crystallization in stoichiometric melts 133 (1993) 181
Chen Xianqiu, see Xu 133 (1993) 267
Cheng, T.T., see Aindow 133 (1993) 168
Cloitre, T., N. Briot, O. Briot, B. Gil and R.L. Aulombard, Low pressure metalorganic vapour-phase epitaxy growth of ZnTe using triethylamine dimethyl zinc adduct 133 (1993) 101
Combescure, C., see Rodríguez-Clemente 133 (1993) 59

Davis, T.J., T. McAllister, V. Maslen, S.W. Wilkins, M. Faith and P. Leech, Mathematical and numerical models of CdTe deposition in a pre-cracking metalorganic chemical vapour deposition reactor 133 (1993) 230
Deppert, K., and J. Jönsson, On the effect of arsine for the decomposition of triethylgallium during epitaxial growth of GaAs 133 (1993) 296
Doyle, I.R., see Ryall 133 (1993) 87
Durand, J., see Rodríguez-Clemente 133 (1993) 59

Eguchi, M., see Watanabe 133 (1993) 23

Faith, M., see Davis 133 (1993) 230
Fan, S.-J., see Xu 133 (1993) 95
Farrow, R.F.C., G.R. Harp, R.F. Marks, T.A. Rabedeau, M.F. Toney, D. Weller and S.S.P. Parkin, Epitaxial growth of Pt on basal-plane sapphire: a seed film for artificially layered magnetic metal structures 133 (1993) 47
Figueras, A., see Rodríguez-Clemente 133 (1993) 59
Filipović-Vinceković, N., see Škrtić 133 (1993) 189
Follsteadt, D.M., see Biefeld 133 (1993) 38
Fukuda, T., see Chani 133 (1993) 181

Georgalis, Y., see Heinrichs 133 (1993) 196
Gil, B., see Cloitre 133 (1993) 101
Griesche, J., see Weidemann 133 (1993) 75

Harp, G.R., see Farrow 133 (1993) 47
Harsdorff, M., see Heyn 133 (1993) 241
Hayafuji, N., see Mihashi 133 (1993) 281
He Chongfan, see Xu 133 (1993) 267
Heinrichs, W., Y. Georgalis, H. Schönert and W. Sänger, Influence of cyclic temperature changes on protein precrystalline aggregates 133 (1993) 196
Heyn, Ch. and M. Harsdorff, Flux control and calibration of an As effusion cell in a molecular beam epitaxy system for GaAs and AlGaAs with a qudrupole mass spectrometer 133 (1993) 241
Heywood, B.R., see Walsh 133 (1993) 1
Hibiya, T., see Watanabe 133 (1993) 23
Hou Wenbo, Yuan Duorong, Xu Dong, Zhang Nan, Yu Wentao, Liu Mingguo, Tao Xutang, Sun Suoying and Jiang Minhua, A new organometallic nonlinear optical material – triallylthiourea mercury bromide (ATMB) crystal: growth and structure 133 (1993) 71
Hsu, C.C., T.K.S. Wong and I.H. Wilson, Surface morphology of metalorganic vapour phase epitaxy grown InP observed by atomic force microscopy 133 (1993) 185
Hu, W.R., see Xiong 133 (1993) 155

Inoue, K., see Chani 133 (1993) 181
Ishii, M., see Sakaki 133 (1993) 329
Itaya, K., see Suzuki 133 (1993) 303

Iwasa, I., see Ota 133 (1993) 207
Izumi, S., N. Yoshida, H. Takano, K. Nishitani and M. Otsubo, Study on the accumulated impurities at the epilayer/substrate interface and their influence on the leakage current of metal–semiconductor–field effect transistors 133 (1993) 123

Jacobs, K., see Weidemann 133 (1993) 75
Jiang Minhua, see Hou 133 (1993) 71
Jönsson, J., see Deppert 133 (1993) 296

Kageyama, S., see Mihashi 133 (1993) 281
Kakimoto, K., see Watanabe 133 (1993) 23
Kaneno, N., see Mihashi 133 (1993) 281
Karakida, S., see Mihashi 133 (1993) 281
Kaya, M., see Li 133 (1993) 175
Kingston, J.L., see Walsh 133 (1993) 1
Kishimoto, S., see Mori 133 (1993) 80
Kizuki, H., see Mihashi 133 (1993) 281
Kou, S., see Lan 133 (1993) 309
Koutsoukos, P.G., see Sabbides 133 (1993) 13
Krier, A., see Mao 133 (1993) 108
Kubota, N., see Mori 133 (1993) 80
Kúdela, R., Growth of $In_{1-x}Ga_xAs$ by vapour epitaxy and analysis of growth conditions 133 (1993) 289
Kumon, S., see Mori 133 (1993) 80
Kurtz, S.R., see Biefeld 133 (1993) 38

Lan, C.W. and S. Kou, Effect of rotation on radial dopant segregation in microgravity floating-zone crystal growth 133 (1993) 309
Leech, P., see Davis 133 (1993) 230
Lefaucheux, F., see Boué 133 (1993) 246
Li, J.-Z., M. Kaya and R.W. Smith, Growth characteristics of γ-$(Fe,Cr)_3C$ eutectic during unidirectional solidification 133 (1993) 175
Liao Jingying, see Xu 133 (1993) 267
Lin, X.Y., G. Arkenbout, P. Bennema and P. van Hoof, The relation between rough and flat growth of crystal faces: an effective approach to volume transport resistances 133 (1993) 322
Liu Mingguo, see Hou 133 (1993) 71
Liu, Z.T., see Zhang 133 (1993) 117
Louchev, O.A., The influence of natural convection on the formation of a molten zone under optical heating 133 (1993) 261

Malkin, A.J. and A. McPherson, Crystallization of pumpkin seed globulin: growth and dissolution kinetics 133 (1993) 29
Mann, S., see Walsh 133 (1993) 1
Mao, Y., and A. Krier, Liquid phase epitaxial growth and photoluminescence of InAsb grown on GaSb substrates from antimony solution 133 (1993) 108
Marks, R.F., see Farrow 133 (1993) 47
Marshall, V.R., see Ryall 133 (1993) 87
Maslen, V., see Davis 133 (1993) 230
Mason, N.J., see Aindow 133 (1993) 168
McAllister, T., see Davis 133 (1993) 230
McPherson, A., see Malkin 133 (1993) 29
Mihashi, Y., M. Miyashita, N. Hayafuji, N. Kaneno, S. Kageyama, S. Karakida, H. Kizuki, A. Shima and T. Murotani, Large-scale metalorganic chemical vapor deposition growth of highly reliable 780 mm AlGaAs multiple quantum well high-power lasers 133 (1993) 281
Miyashita, M., see Mihashi 133 (1993) 281
Mori, T., N. Kubota, S. Abe, S. Kishimoto, S. Kumon and M. Naruse, Spherulitic crystallization of aspartame from aqueous solution in a two-dimensional cell 133 (1993) 80
Murotani, T., see Mihashi 133 (1993) 281

Nakamuta, Y., see Sakaki 133 (1993) 329
Naruse, M., see Mori 133 (1993) 80
Nishikawa, Y., see Suzuki 133 (1993) 303
Nishitani, K., see Izumi 133 (1993) 123

Ogawa, H., H. Ohta and Y. Waseda, Thermal diffusivity measurement of $LiNbO_3$ melts doped with MgO by the laser flash method 133 (1993) 255
Ohta, H., see Ogawa 133 (1993) 255
Okajima, M., see Suzuki 133 (1993) 303
Ota, T., S. Otake and I. Iwasa, Metalorganic chemical vapor deposition growth of Ga-rich ($x < 0.5$) $Ga_xIn_{1-x}P$ on GaAs 133 (1993) 207
Otake, S., see Ota 133 (1993) 207
Otsubo, M., see Izumi 133 (1993) 123

Parkin, S.S.P., see Farrow 133 (1993) 47
Potapenko, S.Yu., Two-dimensional mass transfer models for high-rate crystal growth from solution 133 (1993) 132
Potapenko, S.Yu., Threshold for step percolation through impurity fence 133 (1993) 141
Potapenko, S.Yu., Moving of step through impurity fence 133 (1993) 147

Rabedeau, T.A., see Farrow 133 (1993) 47
Ramasamy, P., see Ravi 133 (1993) 212
Ravi, G., S. Ankubumar and P. Ramasamy, On the growth and characterization of mixed crystals of the triglycine sulphate family 133 (1993) 212
Robert, M.C., see Boué 133 (1993) 246
Rodríguez-Clemente, R., B. Aspar, N. Azema, B. Armas, C. Combescure, J. Durand and A. Figueras, Morphological properties of chemical vapour deposited AlN films 133 (1993) 59

Rosenman, I., see Boué 133 (1993) 246
Ryall, R.G., see Ryall 133 (1993) 87
Ryall, R.L., R.G. Ryall, I.R. Doyle and V.R. Marshall, The dependence of the measurement of crystal growth on the state of crystal aggregation: implication for urolithiasis research 133 (1993) 87

Sabbides, T.G. and P.G. Koutsoukos, The crystallization of calcium carbonate in artificial seawater; role of the substrate 133 (1993) 13
Sakaki, M., Y. Aoki, Y. Nakamuta and M. Ishii, Dendritic diamonds synthesized by simple hot-filament-assisted chemical vapor deposition 133 (1993) 329
Sänger, W., see Heinrichs 133 (1993) 196
Sasaki, M., see Yoshida 133 (1993) 201
Savino, R., see Viviani 133 (1993) 217
Schönert, H., see Heinrichs 133 (1993) 196
Seong, T.-Y., see Aindow 133 (1993) 168
Shao Peifa, see Xu 133 (1993) 267
Shen Bingfu, see Xu 133 (1993) 267
Shima, A., see Mihashi 133 (1993) 281
Shimamura, K., see Chani 133 (1993) 181
Škrić, D., N. Filipovic-Vinceković, V. Babić-Ivančić and Lj. Tušek-Božić, Influence of sodium cholate on the crystallization of calcium oxalate 133 (1993) 189
Slobozhanin, L.A., M.A. Svechkareva and V.A. Tatarchenko, Stability of the melt meniscus during growth of crystals by the technique of pulling from shaper (TPS) under zero-gravity conditions 133 (1993) 273
Smith, R.W., see Li 133 (1993) 175
Sugawara, H., see Suzuki 133 (1993) 303
Sun Suoying, see Hou 133 (1993) 71
Suzuki, M., K. Itaya, Y. Nishikawa, H. Sugawara and M. Okajima, Reduction of residual oxygen incorporation and deep levels by substrate misorientation on In GaAlP alloys 133 (1993) 303
Svechkareva, M.A., see Slobozhanin 133 (1993) 273

Takano, H., see Izumi 133 (1993) 123
Tao Xutang, see Hou 133 (1993) 71
Tatarchenko, V.A., see Slobozhanin 133 (1993) 273
Toney, M.F., see Farrow 133 (1993) 47
Tušek-Božić, Lj., see Škrtić 133 (1993) 189

Van Hoof, P., see Lin 133 (1993) 322
Viviani, A. and R. Savino, Recent developments in vapour cyrstal growth fluid dynamics 133 (1993) 217

Walker, P.J., see Aindow 133 (1993) 168
Walsh, D., J.L. Kingston, B.R. Heywood and S. Mann, Influence of monosaccharides and related molecules on the morphology of hydroxyapatite 133 (1993) 1
Waseda, Y., see Ogawa 133 (1993) 255
Watanabe, M., M. Eguchi, K. Kakimoto and T. Hibiya, Double-beam X-ray radiography system for three-dimensional flow visualization of molten silicon convection 133 (1993) 23
Weidemann, G., J. Griesche and K. Jacobs, Kinematical calculations on reflection high-energy electron diffraction involving absorption 133 (1993) 75
Weller, D., see Farrow 133 (1993) 47
Wilkins, S.W., see Davis 133 (1993) 230
Wilson, I.H., see Hsu 133 (1993) 185
Wong, T.K.S., see Hsu 133 (1993) 185

Xiong, B., and W.R. Hu, Influence of low-gravity level on crystal growth in floating zone 133 (1993) 155
Xu Dong, see Hou 133 (1993) 71
Xu Xuewu, Liao Jingying, Shen Bingfu, Shao Peifa, Chen Xianqiu and He Chongfan, $Bi_{12}SiO_{20}$ single crystal growth by the Bridgman method 133 (1993) 267
Xu, Y.-B., and S.-J. Fan, Accelerated crucible rotation technique: Bridgman growth of $Li_2B_4O_7$ single crystal and simulation of the flows in the crucible 133 (1993) 95

Yoshida, N. see Izumi 133 (1993) 123
Yoshida, S., and M. Sasaki, New damage-free patterning method of a GaAs oxide mask and GaAs selective growth using the metalorganic molecular beam epitaxy method 133 (1993) 201
Yu Wentao, see Hou 133 (1993) 71
Yuan Duorong, see Hou 133 (1993) 71

Zhang, G.F., X. Zheng and Z.T. Liu, Nucleation and growth behaviour of diamond films deposited on chemically etched titanium alloy substrates 133 (1993) 117
Zhang Nan, see Hou 133 (1993) 71
Zheng, X., see Zhang 133 (1993) 117

Journal of Crystal Growth 133 (1993) 341–342
North-Holland

JOURNAL OF CRYSTAL GROWTH

Subject index

Aluminum
– gallium arsenide 241, 281
– nitride 59
Apparatus
– for thin film growth
– – by molecular beam epitaxy 241
– for miscellaneous purposes
– – flow visualization of molten silicon 23
Aragonite 13
L-Arginine phosphate 132
Aspartame 80

Bismuth
– silicon oxide 267

Cadmium
– telluride 230
Calcite 13
Calcium
– carbonate 13
– oxalate 87, 189
Cellular growth
– of γ-iron chromium carbide 175
Computer simulation
– of floating zone crystal growth under microgravity 155, 309
– of metalorganic chemical vapor deposition 230
Constitutional supercooling
– theory of 132
Convection 95, 155, 217, 261, 309

Dendritic growth
– of diamond 329
Device characterization
– lasers 281
– optoelectronic materials 108
– pyroelectric materials 212
– quantum wells 281
– transistors 123
Diamond 117, 329
Dissolution
– of pumpkin seed globulin 29

Epitaxy, see Thin film growth
Eutectic growth
– of γ-iron chromium carbide 175

Gallium
– antimonide 168
– arsenide 123, 201, 241, 296
– indium phosphide 207
Globulin 29

Huntite borate 181
Hydroxyapatite 1

Indium
– antimonide arsenide 108
– antimonide phosphide 38
– arsenide phosphide 185
– gallium aluminum phosphide 303
– gallium arsenide 289
– phosphide 185
Iron
– chromium carbide (γ) 175

Kinetics
– of aggregation 87, 196
– of growth 13, 29, 80, 87, 101, 246, 322
– of interface control 59
– of nucleation 29, 196, 246
– of steps 141, 147
– of volume diffusion 322

L-Arginine phosphate 132
Lasers, see Device characterization
Lithium
– niobate 255
– tetraborate 95
Lysozyme 196, 246

Melt growth technique
– by Bridgman–Stockbarger method
– – of bismuth silicon oxide 267
– – of lithium tetraborate 95
– by Czochralski method
– – of silicon 23
– – theory of 273
– by floating zone method
– – theory of 309
– by uniaxial solidification
– – of γ-iron chromium carbide 175
– by zone melting
– theory of 261

Microgravity, growth under
– of silicon 155
– theory of 155, 217, 273, 309
Morphological stability
– of aluminum nitride 59
– of gallium indium phosphide 207
– control of, by additives 1

Nucleation
– of aspartame 80
– of diamond 117
– of gallium antimonide 168
Numbers
– Grashof 132
– Peclet 132
– Prandtl 132
– Rayleigh 132, 261
– Reynolds 23

Optoelectronic materials, see Device characterization

Platinum 47
Potassium
– dihydrogen phosphate 132
Property measurements
– thermal diffusivity of lithium niobate 255
Pumpkin seed globulin 29

Quantum wells, see Device characterization

Silicon 23, 155
Solution growth technique
– by flux method
– – of huntite borate 181
– by low temperature method
– – of L-Arginine phosphate 132
– – of calcium carbonate 23
– – of calcium oxalate 87, 189
– – of hydroxyapatite 1
– – of lysozyme 196, 246
– – of potassium dihydrogen phosphate 132
– – of pumpkin seed globulin 29
– – of triallylthiourea mercury bromide 71
– – of triglycine sulpho-phosphate 212
– – of triglycine sulphate 212
Surface morphology
– of aluminum nitride 59
Surface processes, theory of 141, 147
Surface structure
– of aspartame 80
– of indium phosphide 185
– of zinc selenide 75

Thin film growth
– by liquid phase epitaxy
– – of gallium arsenide 123
– – of indium antimonide arsenide 108
– by metalorganic molecular beam epitaxy
– – of gallium arsenide 296
– – of zinc telluride 101
– by molecular beam epitaxy
– – of aluminum gallium arsenide 241
– – of gallium arsenide 241
– – of platinum 47
– – of zinc selenide 75
– by vapor phase epitaxy
– – through chemical vapor deposition
– – – of aluminum nitride 59
– – – of diamond 117, 329
– – through metalorganic chemical vapor deposition
– – – of aluminum gallium arsenide 281
– – – of aluminum nitride 59
– – – of cadmium telluride 230
– – – of gallium antimonide 168
– – – of gallium arsenide 201, 296
– – – of gallium indium phosphide 207
– – – of indium antimonide phosphide 38
– – – of indium gallium aluminum phosphide 303
– – – of indium gallium arsenide 289
– – – of indium phosphide 185
– – – of zinc telluride 101
– – – theory of 289
Triallylthiourea mercury bromide 71
Triglycine
– sulpho-phosphate 212
– sulphate 212

Vapor growth technique
– theory of 217
Vaterite 13

Zinc
– selenide 75
– telluride 101